AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings of claims in the application:

1. (Currently Amended) A method for editing a decomposed original video sequence, said decomposed original video sequence comprising one or more original camera-motion layers, each such camera-motion layer being a layer having an appearance of moving along ~~that appears to move~~ with the camera ~~as the camera moves~~, and zero or more original fixed-frame layers decomposed from an original video sequence, comprising the step of:

editing at least one of said original camera-motion layers to obtain modified camera-motion layers such that each frame of a composite modified video sequence composed from said modified camera-motion layers and said original fixed-frame layers is obtained without editing each frame of said original video sequence,

wherein at least one modified camera-motion layer corresponds to an original camera-motion layer containing at least one substantially non-stationary component.

2. (Original) A method as in claim 1, wherein said step of editing said original camera-motion layers comprises the steps of:

converting one of said original camera-motion layers to an original image;

editing said original image to obtain a modified image; and

converting said modified image to one of said modified camera-motion layers.

3. (Original) A method as in claim 2, wherein said step of editing said original camera-motion layers further comprises the steps of:

rectifying said original image prior to editing said original image; and

rectifying said modified image prior to converting said modified image.

4. (Original) A method as in claim 1, wherein said step of editing said original camera-motion layers comprises the step of:

inserting a portion into, deleting a portion from, or changing a portion of one of said original camera-motion layers to obtain one of said modified camera-motion layers.

5. (Original) A method as in claim 1, wherein said step of editing said original camera-motion layers comprises the step of:

replacing one of said original camera-motion layers with another camera-motion layer to obtain one of said modified camera-motion layers.

6. (Original) A method as in claim 1, wherein said step of editing said original camera-motion layers comprises the step of:

adding a video sequence to one of said original camera-motion layers to obtain one of said modified camera-motion layers.

7. (Original) A method as in claim 1, wherein said step of editing said original camera-motion layers comprises the step of:

adding an animation sequence to one of said original camera-motion layers to obtain one of said modified camera-motion layers.

8. (Original) A method as in claim 1, wherein said step of editing said original camera-motion layers comprises the step of:

adding a three-dimensional object to one of said original camera-motion layers to obtain one of said modified camera-motion layers.

9. (Original) A method as in claim 1, wherein said step of editing said original camera-motion layers comprises the step of:

adding a user-activated region to one of said original camera-motion layers to obtain one of said modified camera-motion layers.

10. (Original) A method as in claim 1, wherein said step of editing said original camera-motion layers comprises the step of:

modifying an on/off time of one of said original camera-motion layers to obtain one of said modified camera-motion layers.

11. (Original) A method as in claim 1, wherein said step of editing said original camera-motion layers comprises the step of:

modifying an opaqueness of one of said original camera-motion layers to obtain one of said modified camera-motion layers.

12. (Original) A method as in claim 1, wherein said step of editing said original camera-motion layers comprises the step of:

modifying fade-in/fade-out of one of said original camera-motion layer to obtain one of said modified camera-motion layers.

13. (Original) A method as in claim 1, wherein said step of editing said original camera-motion layers comprises the step of:

modifying an ordering of one of said original camera-motion layers with respect to other layers of said decomposed original video sequence to obtain said modified camera-motion layers.

14. (Previously Presented) A method as in claim 1, wherein said step of editing said original camera-motion layers comprises the step of:

deleting one of said original camera-motion layers of said decomposed original video sequence.

15. (Original) A method as in claim 1, wherein said step of editing said original camera-motion layers comprises the step of:

adding another camera-motion layer to said decomposed original video sequence, such that an ordering of said original camera-motion layers with respect to other layers of said decomposed original video sequence is modified to obtain said modified camera-motion layers.

16. (Original) A method as in claim 1, wherein said step of editing said original camera-motion layers comprises the step of:

modifying a size of one of said original camera-motion layer to obtain one of said modified camera-motion layer.

17. (Original) A method as in claim 1, wherein said step of editing said original camera-motion layers comprises the step of:

editing camera motion parameters of one of said original camera-motion layer to obtain modified camera motion parameters.

18. (Original) A method as in claim 17, wherein said step of editing camera motion parameters comprises the step of:

adjusting at least one of said camera motion parameters to obtain said modified camera motion parameters.

19. (Original) A method as in claim 17, wherein said step of editing camera motion parameters comprises the step of:

replacing said camera motion parameters with analytically-derived camera motion parameters to obtain said modified camera motion parameters.

20. (Original) A method as in claim 17, wherein said step of editing camera motion parameters comprises the step of:

replacing said camera motion parameters with camera motion parameters from another video sequence to obtain said modified camera motion parameters.

21. (Previously Presented) A method as in claim 1, wherein said decomposed original video sequence contains one or more fixed-frame layers, the method further comprising the step of:

editing at least one of said original fixed-frame layers to obtain at least one modified fixed-frame layers.

22. (Original) A method as in claim 21, wherein said step of editing said original fixed-frame layers comprises the steps of:

converting one of said original fixed-frame layers to an original image;

editing said original image to obtain a modified image; and

converting said modified image to one of said modified fixed-frame layers.

23. (Original) A method as in claim 22, wherein said step of editing said original fixed-frame layers further comprises the steps of:

rectifying said original image prior to editing said original image; and

rectifying said modified image prior to converting said modified image.

24. (Original) A method as in claim 21, wherein said step of editing said original fixed-frame layers comprises the step of:

adding camera motion parameters to at least one of said original fixed-frame layers.

25. (Original) A computer comprising software to perform the method of claim 1.

26. (Currently Amended) A computer-readable medium comprising software for the computer to perform the method of claim 1.

27. (Currently Amended) An apparatus for editing a decomposed original video sequence, said decomposed original video sequence comprising one or more original camera-motion layers, each such camera-motion layer being a layer having an appearance of moving along ~~that appears to move~~ with the camera ~~as the camera moves~~, and zero or more original fixed-frame layers decomposed from an original video sequence, comprising:

means for editing at least one of said original camera-motion layers to obtain modified camera-motion layers such that each frame of a composite modified video sequence composed from said modified camera-motion layers and said original fixed-frame layers is obtained without editing each frame of said original video sequence,

wherein at least one modified camera-motion layer corresponds to an original camera-motion layer containing at least one substantially non-stationary component.

28. (Original) An apparatus as in claim 27, further comprising:

means for editing at least one of said original fixed-frame layers to obtain modified fixed-frame layers.

29. (Currently Amended) An apparatus for editing an original video sequence, comprising:

an object-based video encoder to decompose said original video sequence into a decomposed original video sequence, said decomposed original video sequence comprising one or more original camera-motion layers, each such camera-motion layer being a layer having an appearance of moving along ~~that appears to move~~ with the camera ~~as the camera moves~~, and zero or more original fixed-frame layers;

a video editor to edit at least one of said original camera-motion layers to obtain a decomposed modified video sequence, wherein at least one original camera-motion layer edited by said video editor contains at least one substantially non-stationary component; and

an object-based video compositor to compose said decomposed modified video sequence to obtain a composite modified video sequence, wherein each frame of said composite modified video sequence is obtained without editing each frame of said original video sequence.

30. (Currently Amended) A method for editing a decomposed original video sequence, said decomposed original video sequence comprising one or more original camera-motion layers, each such camera-motion layer being a layer having an appearance of moving along ~~that appears to move~~ with the camera ~~as the camera moves~~, and zero or more original fixed-frame layers decomposed from an original video sequence, comprising:

editing at least one of said original camera-motion layers to obtain modified camera-motion layers such that each frame of a composite modified video sequence composed from said modified camera-motion layers and said original fixed-frame layers is obtained without editing each frame of said original video sequence, said editing comprising editing at least one camera motion parameter

of one of said original camera-motion layer to obtain a set of modified camera motion parameters, said camera motion parameters dictating camera movement with respect to the one or more camera-motion layers.

31. (Previously Presented) The method of Claim 30, further comprising:

composing said composite modified video sequence from said modified camera-motion layers and said original fixed-frame layers, including reprojecting a relevant part of said modified camera-motion layers according to said modified camera motion parameters.

32. (Previously Presented) The method of Claim 30, wherein said camera motion parameters are to specify a coordinate transformation between an image plane of at least one camera-motion layer and an image plane of at least one video frame.

33. (Previously Presented) The method of Claim 30, wherein said camera movement includes at least one type of movement selected from the group consisting of: panning, zooming, tilting, and rolling.